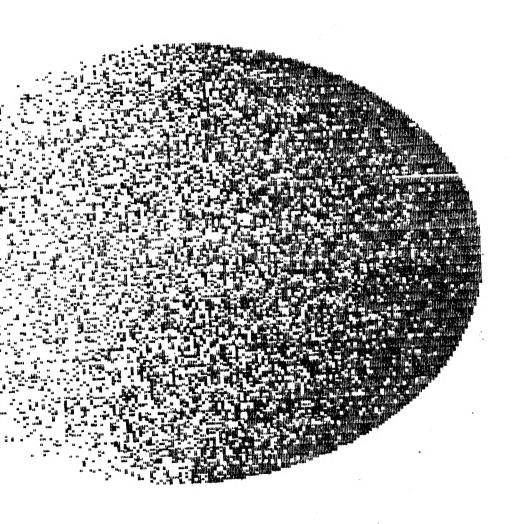


PRODUCED BI-MONTHLY BY H. V. VZ.



PRODUCED BI-MONTHLY BY H. V. VZ. U. G

EDITOR'S COMMENTS

FRONT DOMER :-

Another first for the Journal. This issue sports a cover having SUFER HI RESOLUTION. My thanks to Matthew Sorell for printer routine and Larry Taylor for SUPER HI-RES graphic screen with a resolution of 256 X 192 pixels.

CLUB NEWS AND OTHER USER GROUPS :-

Page 3

PUT/GET * 3 by Robert QUINN Page 4
Robert has enlarged his previous PUT/GET routine with 3 instant menus.

FOR PRIVATE SALE - COMPUTER SHARER SWITCH

Page 4

VZ MONOPOLY REVIEW by Peter J.HILL Page 5

If you like playing monopoly then get in quick for your VZ copy as it want be available much longer. See VZ DOWN UNDER Ad on page 12.

FOR PRIVATE SALE - VZ200 TAPE SYSTEM :-

Page 5

TAPE SIGNAL CONDITIONER by Neville HUGHES:- Page 6
With this unit you should be able to use about any cassette recorder with the VZ. Meter and sound indication is also provided.

PRINTER BUFFER UPDATE by Dave BOYCE:- Page 7

Dave gives an update of improved P.C.B's for printer buffer, etc.

64K RAM PACK CIRCUIT DIAGRAM by Chris HOBROUGH:- Page 8
Chris has provided 64K Ram Pack owners with invaluable info in case repairs
are necessary. It's meant to supplement your Tech. Ref. Manual.

DISK DRIVE PROBLEMS:
One of our members child used the drive as a money box. The child had trouble retrieving his coin while his dad could'nt get drive to work.

DOS PROBLEMS:
Iv'e long been aware that different versions of DOS were around incuding two versions of V1.2 and not all versions are compatible with each other either.

JAG JETTY II by Adam MAGEE:
This sequel by Adam is bit more dificult to play and even though it's ID-AFG a lot could be learned on how to move objects around the screen. Although the screen dumps does'nt show it the screen has black background.

FOR PRIVATE SALE:—

Dave Mitchell, author of original E & F Tape W.P. Patch has more goodness with an expanded EXTENDED DOS, MENU/FILE COPIER and DISKFILER/CATALOGUER.

VZ DOWN UNDER - NEWSLETTER AND SOFTWARE ADS :- Page 12
VZ DOWN UNDER SOFTWARE is closing down with software at bargain prices.

QUICKWRITE WORDPROCESSOR & E&F TAPE TO DISK W.P.PATCH :- Page 13

ZBO INSTRUCTION SET compiled by Brian GREEVE:- Pages 1-9
This list is tabulated in numerical order instead of OP CODE alphabetical order. The left column merely indicates LINE/LIST No.

128K S/WAYS RAM & 4K-64K S/WAYS EPROM - My apologies regarding above, but Circumstances have delayed them and they should be in next issue.

PROJECTS PLANNED FOR COMING ISSUES:AUTO START/STOP FOR DATASSETTES - SUPER HI-RES GRAPHICS ADAPTOR
BK-32K SIDEWAYS VIDEO RAM - 16K-32K SIDEWAYS EPROM (BASIC ROM).

DOS AREA BK-64K SIDEWAYS EPROM - 32K-12BK SIDEWAYS RAM (RAM DISK ??)

NEW COMMITTEE :-

At our June meeting a new committee was elected. All positions are honorary and carry no renumeration.

(049) 71 2843 PRESIDENT Ross WOODS (049) 51 2756 SECRETARY/EDITOR . . . Joe LEON (049) 75 2350 TREASURER Matthew TAYLOR

COMMITTEE MEMBER . . . Colin BRIDGE

The Hunter Valley VZ Users' Group extends the outgoing President a vote of thanks for a job well done. Many people thought about starting a VZ club, but unlike others, myself included, Peter got of his butt and started the hall rolling, THANKS Peter.

AUGUST CLUB MEETING :-

Joe LEON will demonstrate his VZ which was modified for SUPER HI RESOLUTION GRAPHICS. Well worth seeing what the VZ is capable off.

BRISBANE VZ USERS WORKSHOP & EXPO 88 :-

Like many other people I'm off to Brisbane for EXPO 88 arriving 10 A.M., After settling in at my destination then it's off to Brisbane Users Workshop club meeting around 1 P.M.

The above group put their monthly meeting back one day so I could attend and meet more of their members which I'm keenly looking forward to. I appreciate the compliment and my apologies to those members who may miss out on their regular meeting because it's a day later.

OTHER VZ USER GROUPS AND PUBLICATIONS :--

MARK HARWOOD P.O.BOX 154 DURAL N.S.W. 2158 VZ USER

J.C.E. D'ALTON 39 AGNES St. TOOWONG DLND. 4066 VSOFTWAREZ - SOFTWARE/HARDWARE FOR SALE

VZ DOWN UNDER SCOTT LE BRUN 59 BRENTWOOD DVE WANTIRNA 3152

VZ-LINK - PETER J. HILL P.O.BOX 1972 C.P.O. AUCKLAND N.Z.

WAVZ - GRAEME BYWATER P.O. BOX 388, MORLEY W.A.

BRISBANE VZ LISERS WORKSHOP - C/O 63 TINGALPA ST. WYNUM WEST 4178

HUNTER VALLEY VZ USERS' GROUP - P.O. BOX 161 JESMOND N.S.W. 2299 SECRETARY/EDITOR-JOE LEON (049) 51 2756 - PRESIDENT-ROSS WOODS (049) 71 2843

SUBSCRIPTION - H.V.VZ.JOURNAL - 6 MONTHS \$9.00 - 12 MONTHS \$18.00 New Zealand - 6 MONTHS \$12.00 - 12 MONTHS \$24.00

NEW VENUE - NEW DATES - NEW VENUE - NEW DATES - NEW VENUE

NEETINGS - FIRST FRIDAY of MONTH at JESMOND NEIGHBOURHOOD CENTRE MORDUE PARADE - REAR STOCKLAND MALL (BIG W) JESMOND

NOTE :- When writing to any above or H.V.VZ. Users' Group for information please enclose a S.S.A.E. or NZ 2 Int. Reply Coupons.

The Hunter Valley VI Journal is subject to COPYRIGHT and No MATERIAL in this Journal may be reproduced in part or whole without the consent of the Author who retains COPYRIGHT.

When RUN, PUTGET*3 sets up two machine code routines (PUT and GET) in a block of unused memory in the COMMUNICATIONS REGION and activates two of the old TRS80 DISK tokens which are POKEd into the BASIC subroutine (PUT/GET) located at the beginning of PUTGET*3.

In text mode your VZ only uses the first quarter (512 bytes) of video memory to display the screen. The remaining three quarters of video memory can be used as three video stores:- VSO (29184 to 29695). VS1 (29696 to 30207) and VS2 (30208 to 30719).

PUTGET*3 allows you to store three screens in video memory and recall them whenever you wish. The BASIC PUT/GET subroutine can be called with a GUSUNIZ. and offers you six options, selected by pressing the number keys 1 to 6:-

- <1> GET: copies VSO to screen
- <2> GET1: copies VS1 to screen
- <3> GET2: copies VS2 to screen
- <4> PUT: copies screen to VSO
- <5> PUT1: copies screen to VS1
- <6> PUT2: copies screen to VS2

If you don't want the PUT/GET MENU to display (and so be copied to the video stores along with the rest of the screen) then use a GOSUB14 instead of a The number keys will still do their jobs; you just have to remember which keys do what. Pressing any character key other than the number keys 1 to 6 will QUIT PUT/GET.

- PUTGET*3 SUBROUTINE WRITTEN BY ROBERT QUINN

- 10 GOT0022
- 12 PRINT"**** 學問題 图 图"," 圖圖 图 图 图****"
- 14 K\$=INKEY\$; K\$=INKEY\$; IFK\$=""THEN14ELSESOUND20,1
- 16 IFK\$="1"THENGELSEIFK\$="2"THENG1ELSEIFK\$="3"THENG2
- 18 IFK\$="4"THENPELSEIFK\$="5"THENP1ELSEIFK\$="6"THENP2
- 20 IFK\$>"O"ANDK\$<"7"THEN14ELSERETURN
- 22 POKE31556,164:POKE31567,164:POKE31579,164
- 24 POKE31594,165:POKE31605,165:POKE31617,165
- 30 FORR=31273T031345: READB: A=A+B: POKER, B: NEXT
- 35 IFA<>6240THENSOUND30,2;20,1;PRINT"開閉即即開聯與關聯可以開刊:END
- 40 POKE31107,41:POKE31108,122:POKE31104,72:POKE31105,122
- 45 DATA17,0,114,183,40,19,254,58,40,15,35,254,49,17,0,116,40,7
- 50 DATA254,50,17,0,118,32,44,229,33,0,112,24,31
- 55 DATA229,33,0,114,17,0,112,183,40,21,254,58,40,17,225,35,229
- 60 DATA254, 49, 33, 0, 116, 40, 7, 254, 50, 33, 0, 118, 32, 7, 1, 0, 2, 237, 176
- 65 DATA225,201,225,195,151,25

FOR PRIVATE SALE

COMPUTER SHARER SWITCH :-

Complete ready to plug in, includes paperwork. Requires power supply or plug pack.

PRICE \$50.00 & includes P/P within Aust. and is available from :-CHRISTIE DOWNS 5164 S.A. 41 HEATHER Drive For more info send SSAE or phone (08) 384 6574

If you have ever played the board game Monopoly, you will know that it is a excellent game which has been around for many years, and is played by many people in many countries.

Now you can play Monopoly on the VZ computer with all the frill's and deals of the board game.

For those that have never played Monopoly, its all about buying and selling real estate including railway stations, waterworks and even whole streets.

Once you start to acquire property it will really go to your head and the feel of the mighty dollar will get the better of you. You will soon get the art of wheeling and dealing.

This program is well designed and really well written and I am sure that this VZ version will give you as much pleasure and mental stimulation as the board bound monopoly.

You are able to view your title deeds and you can even look at a Hi-Res picture of the monopoly board, which shows where each player is. Also available is a graphic picture of your present location on the board. You also have all the features of the board game such as community chest and chance.

Upto nine players can play this game, I would like to get nine people together and just see how well this great program handles all the input details. I however enjoyed playing the VZ and did Infact win one game.

CONCLUSION :-

Another superb piece of VZ software and as stated a very excellent, and well written VZ game to play.

COST A\$15-00 - Available from :-Scott Le Brun 59 Brentwood Drive Wantirna VIC 3152 Australia

STOP PRESS - VZ DOWN UNDER SOFTWARE is closing down and VZ MONOPOLY is available at a clearance price of only \$5.00 for TAPE OR DISK version. Other titles available at same price. See VZ Down Under ad elsewhere in this issue for other titles.

FOR PRIVATE SALE

HARDWARE - VZ200 + DR20 DATASSETTE

VZ200 16K RAM PACK, JOYSTICK & PRINTER INTERFACES

SOFTWARE - Over 20 tapes

BOOKS - Giant book of games, Introduction to Computing and VZ300 Technical Reference Manual.

PROGRAM LISTINGS - Bundle from various sources.

For prices and more information contact Warren KEEN on (049) 46 7323

THIS CIRCUIT MAY BE OF INTEREST TO TAPE USERS, A FAIR AMOUNT OF LABOUR IS INVOLVED, BUT IT WILL LOAD FROM ANY CASSETTE RECORDER EVEN WITH TONE CONTROLS TWIDDLED.

I CAN'T GIVE PARTS VALUES BECAUSE IT DEPENDS ON YOUR COMPUTER A CERTAIN AMOUNT AND VERY MUCH ON THE TYPE OF METER USED. FOR THAT REASON VARIABLE RESISTORS (POTS) ARE SHOWN IN CIRCUIT AND WHEN UNIT IS CALIBRATED THE POTS CAN BE MEASURED AND REPLACED WITH NEAREST VALUE 1/4W RESITORS.

SETTING UP METER CIRCUIT :-

SET POT TO FULL VALUE, GET A TAPE THAT YOU KNOW LOADS WELL. PLUG METER INTO COMPUTER. START TAPE AND ADJUST POT SO METER IS SHOWING HALF SCALE. ALLOW TAPE TO FINISH LOADING AND RUN PROGRAM TO CHECK THAT IT LOADED OK.

NEXT GET A LOUSY TAPE (PROGRAM THAT WON'T LOAD PROPERLY) AND ADJUST VOLUME CONTROL ON CASSETTE RECORDER TILL METER SHOWS 1/2 SCALE. REWIND TAPE AND CRUN, IT SHOULD LOAD OK.

SIGNAL CONDITIONER :-

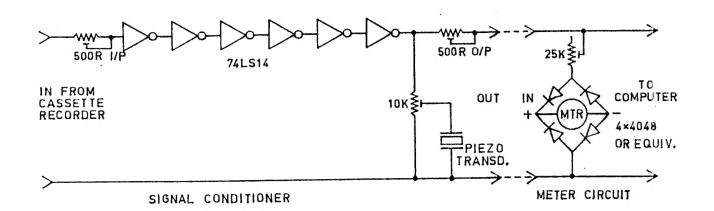
DO NOT CONNECT METER TILL THIS UNIT IS CALIBRATED. SET 10K POT HALFWAY, PUT IN A GOOD TAPE AND PRESS PLAY. ADJUST CASSETTE RECORDER VOLUME ABOUT 1/4 WAY AND THEN ADJUST 500R INPUT POT UNTIL YOU HEAR SOUND IN SPEAKER (THIS IS THE TRICKY BIT).

TURN 10K POT SO SOUND IS EASY TO HEAR. IF SOUND IS A NICE CLEAN NOTE, TURN 500R INPUT POT TO HIGHER VALUE (ON THE INPUT POT IT'S BEST NOT TO DROP BELOW AROUND 80 OHMS) AND IF SOUND DOES NOT CHANGE LOWER THE VOLUME ON CASSETTE RECORDER AND YOU WILL FIND A POINT WHERE THE SOUND GOES FUZZY. TURN VOLUME CONTROL UP JUST ABOVE WHERE IT SOUNDS CLEAN AND SWITCH CASSETTE RECORDER OF.

ADJUST 500R OUTPUT POT TO IT'S FULL VALUE OF 500 OHMS. PLUG METER INTO COMPUTER AND CONNECT OUTPUT POT OF SIGNAL CONDITIONER TO INPUT OF METER. SWITCH CASSETTE RECORDER ON AND PUT IN A GOOD TAPE AND PRESS PLAY. ADJUST 500R OUTPUT POT FOR SAME SCALE READING AS BEFORE.

TRY LOADING ONE OR MORE TAPES AND IF ALL LOAD OK THEN THE TWO 500 OHM POTS CAN BE MEASURED AND REPLACED WITH NEAREST VALUE 1/4W RESISTORS. SWITCH TAPE BACK ON AND NOTE ANY CHANGE IN METER READING, AND WHEREVER IT NOW READS IS YOUR SETTING POINT FOR LODING TAPES.

"I PLAYED WITH TREBLE AND BASS CONTROLS WHILE LOADING SOME REAL LOUSY TAPES AND THEY LOADED EVERY TIME. THE ABOVE CIRCUIT SHOULD WORK WITH MOST RECORDERS AND IF SET UP WITH SAME, ANY COMPUTER AND NOT ONLY THE VZ.



UPDATE ON DON MCKENZIES PRINTER BUFFER

This article is not intended as a rewrite of one I wrote which appeared in the AUGUST 1986 issue of HUNTER VALLEY VZ USERS' GROUP NEWSLETTER or the A.E.M. article in MARCH 1987 page 92 which explains the workings in better detail. If you don't have this issue look it up in your local library, it's well worth the effort. This article is simply an update on the P.C. Board and the EPROM itself, plus some of Don's other P.C. Boards.

First we'll look at the board. The older boards were Single Sided and required some 31 links, whereas the latest version (G) is now DOUBLE SIDED with PLATED THROUGH HOLES - No more links. This makes for a much smaller and compact board. The next improvement is provision for using I.D.C. connectors & headers.

The EPROM - Earlier Eproms contained as one of their features a Software Pause. This S/P was simply a Double Back Slash '\\' which was used to stop the P/BUFFER from Outputting Data until the COPY switch was pressed, then it would carry on as before. This feature has it's uses. Don now has two versions of the EPROM :-

> Version PD includes the Software Pause facility. Version PC is without the Software Pause facility.

When ordering from Don, please state which version you require. In the Sept. 1987 issue of Hunter Valley VZ Users' Group Journal I wrote on Don's : PRINTER SWITCH, COMPUTER SWITCH and mentioned the SERIAL BOARD.

At that time, I had only made the P/BUFFER and PRINTER SWITCH. Since then I've also built up a SERIAL BOARD, COMPUTER SWITCH, another PRINTER SWITCH and of the new Double Sided Boards a BPIO (Back Panel IN/OUT) Board and a version (G) P/BUFFER using a version PC EPROM. Along with the P/BUFFER hoard all the other boards are 'Tinned Double Sided with Plated Through Holes' which makes for an exellent finish. The Serial Board (RS-232 or TTL levels) is actually in two sections :-

- 1> Serial to Parallel converter
- 2> Parallel to Serial converter

By using both sections, a Serial Only System (Serial Out Computer to Serial in Printer) can make good use of the P/BUFFER. Don also has a range of (5) small boards, IE :-

DB-JUMP -25 DB CROSS-25 (Gender Bender) DB-PATCH-25 DB-BEND -25 (T-GENDER Bender)

DB-TEST -25

Please remember - exept for the P/BUFFER Board which comes with an EPROM. ALL units are P.C. Boards ONLY to which you must add your own components.

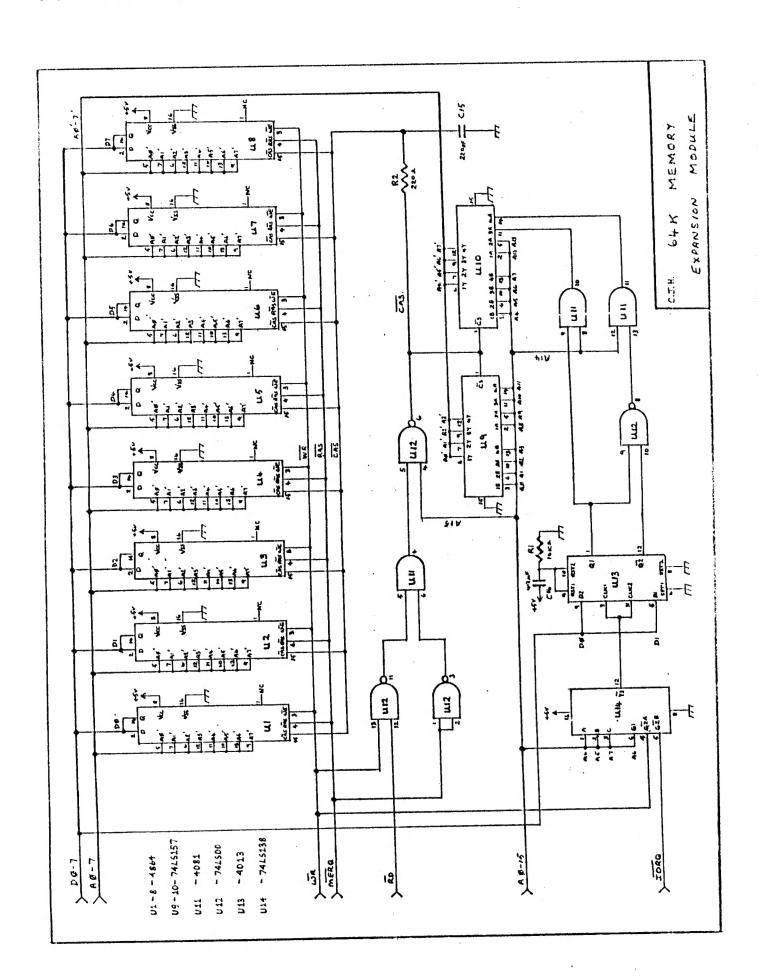
Current Prices - These may change so please check.

DB-CROSS-25 - \$14.00 PBUFFER Short Form Kit - \$40.00 SERIAL BOARD - - - - - \$18.00 DB - JUMP - 25 - \$4.00PRINTER SWITCH BOARD - - \$12.00 DB-BEND -25 - \$ 4.00 COMPUTER SWITCH BOARD - \$12.00 Db-PATCH-25 - \$ 4.00 BACK PANEL IN/OUT BOARD \$ 9.00 DB-TEST -25 - \$ 4.00 Plus Pack & Post

For more information and paperwork enclosing a SSAE write to :-Mr. Don McKENZIE 29 ELLESMERE Cresc. TULLAMARINE 3043 Vict Mist

Written by Dave BOYCE April 1988

URAWN BY CHRIS HOBROUGH



Investigation by club member revealed a 5 cent coin inside drive. It seems his child used his drive as a money box, a very expensive one too. I offered to have a look at drive as I had some ideas on possible problem.

The VZ disk drive system consists of Drive and Controller and obviously both had to be tested. First, his disk controller was tried with my drive and it worked OK. Next my controller was tried with his drive and it still had faults as before which ruled out his controller.

Fixing anything is a process of elimination and deduction and sometimes a lot of luck. By studying circuit diagram of drive in Tech. Ref. Manual I suspected UB, ULN2003 which is an octal relay/motor driver IC. The other contender was a 74LS14, a HEX SCHMITT TRIGGER IC. While the circuit board was out I decided to remove four IC'S and put in sockets in case others had to be replaced.

Surprise !, a 74LS32 was discovered on P.C.B. which wasn't shown in circuit and I had no idea of function it performed. The 74LS14 was replaced first and it made no difference. Next the 74LS32 and ULN2003 were replaced and drive worked OK. As it was getting late, drive was reasembled and I haven't had chance to find out which IC was the culprit. I strongly suspect the ULN2003.

It appears that early versions of disk drives have no 74LS32'S while later ones have and both my drives do.

DOS PROBLEMS

As editor I receive and send disks all over Aust. and N.2. Mostly the disks work OK, but a few do not. I used to blame drive incompatibility, but couple days ago I came across second version 1.2 DOS which previously I only heard about. As far as I know there are five versions of DOS around and I suspect not all 100% compatible with each other. The five versions are

V1.0 - V1.1 - V1.2A - V1.2B - Laserlink Dos.

I have version 1.0 and 1.2B. I call the two versions of V1.2, A and B simply to tell them apart as they both power up as V1.2. One of the programs sent to me used to hang up the V2 when specific disk access was performed. I placed V1.2A in my BK BIB Ram and switched out V1.2B and switched in V1.2A, and now the particular program performs as designed.

When time permits I'll investigate as far as I can the incompatibility between the two versions, or if someone already has, then we would be pleased if you would share with other VZ users. I've never came across a V1.1 DOS and if someone has one, then I would like to hear from you.

```
TO REM JAG JETTY II - JOYSTICK VERSION
20 LF=0:CLS:POKE30744,1
30 FORT%=28471T029184:POKET%,128:NEXT
40 FORI%=28672TO29184STEP32:POKEI%+10,191:POKEI%+23,191:NEXT
50 FORI%=29152+11TO29152+22:POKEI%,239:NEXT
DI PRINT:PRINT:PRINT:PRINT:PRINT:PRINT
52 PRINT"
          18
53 PRINT"
54 PRINT"
55 PRINT" # # #"
ba PRINT" "ALL" "
57 PRINT"
           111
& PRINT@384+11,"眦 쨃 뻬 뻬 빼 쌦 쌤 "
70 X=16:Y=0
80 A=(INP(43)AND31)
YO IFA=30ANDY>OTHENY=Y-1:IFY=0ANDLK=1THEN7000
100 IFA=29ANDY<15THENY=Y+1
110 IFA=27THENX=X-1
120 IFA=23THENX=X+1
125 P=PEEK (28672+X+Y*32)
126 IFP=239THEN4000
11.7 IFP=1590RP=1910RP=2230RP=31THEN5000
130 POKE28672+0X+0Y*32,128
140 POKE28672+X+Y*32,42
141 P=PEEK (28672+X+Y*32)
142 IFP=239THEN4000
143 IFP=1590RP=1910RP=2230RP=31THEN5000
150 DX=X:DY=Y
 150 I=RND(12)
1/O IFI=10RI=BORI=4THENGOSUB1000
 180 IFI=20RI=5THENGOSUB2000
 190 IFI=30RI=60RI=12THENGOSUB3000
 200 IFI=80RI=7THENGOSUB1500
 220 IFI=100RI=90RI=11THENGOSUB3500
 230 GOTO 80
 1000 PRINT@384+11,"闡 眦 眦 瞓 瞓 ":RETURN
 1500 PRINT@384+11," 蝴 棚 蝴 鯛 鯛 端":RETURN
 2000 FORI%=22T011STEP-1
 1005 IFPEEK (28672+128+1%)=42THEN5000
 2010 POKE28672+128+1%,31
 1030 IFI%<22THENPOKE28672+128+1%+1,128
 2040 NEXT
 2041 POKE28672+128+11,128
 2050 RETURN
 3000 FORI%=11TO17
 3010 POKE28672+256+I%,223;POKE28672+256+33-I%,223
 3020 FORMN=1TO20:NEXT:NEXT
 3030 RETURN
 3500 FORI%=11TO17
 3510 POKE28672+256+I%,128:POKE28672+256+33-[%,128
  3515 FORNM=1TO20:NEXT:NEXT
 3520 RETURN
  4000 LK=1:Y=Y-1:
  4010 PRINT@192,"
  4020 PRINT@224,"
                   id the let
  4030 PRINT@256,"# #
  4040 PRINT@288,"
  4050 PRINT@320," 4
  4060 PRINT@352," #
  4070 GOTOBO
  5000 CLS:PRINT"BOOM":END
```

2000 PRINT"YIPPEE"

JAG JETTY II was written for joystick use. To use it with the keyboard type in lines 80 to 120 below. The object of the game is to move the Star past 3 moving obstacles to the bottom then return without getting zapped or squashed. Have fun . . .

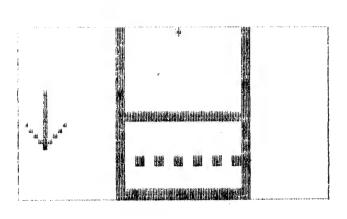
SO ASSINKEYS: ASSINKEYS

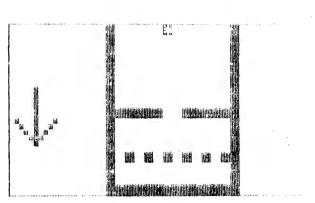
70 IFA≢="Q"ANDY>OTHENY=Y-1:IFY=OANDLK=1THEN7000

100 IFA#="A"ANDY<15THENY=Y+1

110 IFA\$="M" THENX=X-1

120 IFA #=" , " THENX = X + 1





FOR PRIVATE SALE

EXTENDED DOS VI.3 - \$15.00 The previous version has been updated with extra commands added.

ULD COMMANDS :-MERGE, DIRA, LDIRA, DIRB, LDIRB, OLD, OLD., DEC, HEX, STATUSA and LSTATUSA. STATUSA and LSTATUSA also works with Version 1.0 DOS.

NEW COMMANDS :-

MENU - Loads and RUNs Binary or Text MENU program from disk.

- Simplifies using printer control codes directly or from CODE within a program.

- 1s for setting of Left Margin. LTAB

- Moves Basic file from disk to chosen memory address. MOVE

- Erases old file and saves with same file name. UPD

NENU/FILE COPIER/DISK ORGANISER - \$15.00

This utility will read your disk directory and present you with several options. Using the Cursor you can RUN/BRUN any program or select FILE COPY, REN, ERASE, DRIVE 1 OR 2, etc. BINARY files all other files can be Besides COPYING TEXT and copied as well exept for DATA files.

DISKFILER - To be released soon

This utility will allow you to keep track of what files are which disk with Printout and many other options. It's a Database for your disk files.

For purchase or more info contact - Dave MITCHELL - (079) 27 8519 24 ELPHINSTONE St. NORTH ROCKHAMPTON QUEENGLAND

For information or demonstration in Newcastle area contact : Jue LEON - (049) 51 2756 - 22 DRURY St. WALLSEND NSW 2287

GRAFSTAR SHOPSTAR

VZ200/300 USERS' MAGAZINE

game HIGH SCORE list aswell as an program for the complete beginner and "ASSEMBLY for the machine Each edition consists Featuring "BASIC MADE EASY" choc-a-block full of code programmer, as regular articles. ono the published articles and for PROGRAMMING" COLUMN 13 bi-monthly basis. tips, pages magazine ADUENTURERS" listings. rd రు of 1.0-20 LANGUAGE hints Also The

like are you, every edition to let know what each item is SOFTHARE REVIEWS Before you buy it citi r.i user, HARDHARE included players.

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ULITILIES;

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NAMESTAR/

DATA

CASTLE GREYSTONE HAUNTED MANSION KNIGHTS QUEST SCOTLAND YARD

GAMES!

BLACKJACK ROYALE GALACTIC EMPIRES VZ MONOPOLY

All Boltware

TAPE/DISK COLES SE COL - SCOIL TE BRUN CHEQUES/M.O. :

The different body bear may be at にはなりまし、プラスした。 たつ



GUICKWRITE WORDPROCESSOR *

NEW VERSION V4.

Version V4 does not replace

msion V3. V4 is a little more implicated to use but has more

The main one being that printer print styles, often wrongly called fonts, can be changed anywhere in the data/text.

This means even part of a

Another feature is the ability to scroll up and down, to start or and of the sens. This is rester what can be done.

This is printed by a CITIEEN 188 Deprinter which can print in the mode called in

Price A\$40.00.

Only available from VSOFTWAREZ
39 Agnes St., TOOWONG. QLD. 4066.
AUSTRALIA.
Phone (07) 371 3707.

E & F PATCH 3.1 (C) H.V.VZ.U.G.

This single Patch will convert your E & F TAPE WORD PROCESSOR for full DISK use while retaining all TAPE functions. It can be used with 1 or 2 DRIVES. Below are the two Menus.

L)OAD E)DIT TEXT S) AVE C) LEAR TEXT D) IR PORINT TEXT E)RA LOOAD FILE R) EN S) AVE FILE INIT V) ERIFY FILE 1-2) DRIVE 1. Q)UIT PROGRAM M) ENU DIISK

Fast SAVING and LOADING of TEXT DATA to and from Disk is provided using Block SAVE/LOAD techniques. Full instructions are supplied together with a Tape to Disk transfer utility for your E& F Tape Word Processor.

This Patch will work with V1.0 or V1.2 Disk Controller. A STATUS facility has been added for V1.0 DOS owners.

DISK DRIVE + V1.0 OR V1.2 DOS VZ300 + 16K RAM PACK OR VZ200 + 16K RAM PACK + 2K)

The price - \$13.00, NZ AU\$15.00 and is available from :-HUNTER VALLEY VZ USERS' GROUP P.O.BOX 161 JESMOND 2299 N.S.W. AUSTRALIA Phone (049)51 2756

ZBO OPCODES COMPILED BY B.GREEVE

13	BC CC'12 \$\frac{1}{2}\$\frac{1}
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11111111111111111111111111111111111111	1551554567890123456789012345678901234 155155678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012333333333333333333333333333333333333	222 2 999999999999999999999999999999999	HUBCTEHL (A AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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33333333333333333333333333333333333333	2033,1134567890123456789012232222222222222222222222222222222222	CB7723456789ABCDEFØ123456789ABCDEFØ123456789ABCDEFØ123456789ABCDEFØ123456789ABCDEFØ123456789ABCDEFØ123456789ABCDEFØ123456789ABCDEFØ123456789ABCDCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL))))) SACDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL)))))) SACDEHL(ABCDEHL(ABCDEHL(ABCDEHL(ABCDEHL))) SACOBEHL(ABCDEHL(ABCDEHL(ABCDEHL))) SACOBEHL(ABCDEHL(ABCDEHL)) SACOBEHL(ABCDEHL(ABCDEHL)) SACOBEHL(ABCDEHL) ABCDEHL(ABCDEHL(ABCDEHL)) SACOBEHL(ABCDEHL) SACOBERSONSONSONSONSONSONSONSONSONSONSONSONSONS
382 38 3	203,187 203,188	CBBC	RES 7'H

```
RST 10H
                                 D7
          215
462
                                 DB
                                                RET
          216
217
463
                                                EXX
                                 D9
464
                                                JP C'1234
                                 DA3412
          218,#,#
465
                                                IN A' (12)
                                 DB12
          219,#
466
                                                 CALL C' 1234
                                 DC3412
          220, #, #
467
                                                ADD IX, BC
                                 DDØ9
                   9
           221,
468
                  25
                                 DD19
           221,
469
                                                 LD IX'1234
                                 DD213412
DD223412
          221,
221,
221,
                  33, #, #
470
                                                 LD (1234)'IX
                  34,#,#
471
                                  DD2\overline{3}
                                                 INC IX
                  35
                                                 ADD IX'HL
LD IX'(1234)
DEC IX
472
                                  DD29
           221,
221,
                  41
473
                                  DD2A3412
                  42,#,#
474
                                  DD2B
           221 ¥
221 ¥
                   43
475
                                                 INC
                                                      (IX+12)
                                  DD3412
                  52,#
476
                                                      (IX+12)
                                                 DEC
                                  DD3512
                  53,#
           221,
 477
                                                     (IX+12)'12
                                  DD361212
                                                 LD
           221,
                   54,#,#
                                                 ADD IX'SP
 478
                                  DD39
           221,
                   57
 479
                                                 LD B' (IX+12)
                                  DD4612
           221,
                   70,#
 480
                                                      C'(IX+12)
                                                 LD
                                  DD4E12
           221,
221,
                   78,#
 481
                                                 LD D' (IX+12)
                                  DD5612
                   86,#
 482
                                                 LD E' (IX+12)
                                  DD5E12
            221,
                   94,#
 483
                                                 [D H, (IX+12)
                                  DD6612
            221,102,#
 484
                                                     L'([X+12)
                                  DD6E12
                                                 LD
            221,110,#
                                                      (IX+12),B
 485
                                  DD7012
                                                 LD
            221,112,#
 486
                                                      (IX+12)'C
                                                  LD
            221,113,#
                                  DD7112
 487
                                                      (IX+12)'D
                                  DD7212
DD7312
                                                  LD
            221,114,#
 488
                                                       (IX+12)'E
                                                  LD
            221,115,#
 489
                                                       (IX+12)'H
                                  DD7412
                                                  LD
            221,116,#
 490
                                                       (IX+12)'L
                                                  LD
                                   DD7512
            221,117,#
 491
                                                      (IX+12)'A
                                   DD7712
                                                  LD
            221,119,#
                                                  LD A'(IX+12)
ADD A'(IX+12)
ADC A'(IX+12)
  492
                                   DD7E12
            221,126,#
  493
                                   DD8612
            221,134,#
  494
                                   DD8E12
            221,142,#
  495
                                                  SUB (IX+12)
                                   DD9612
            221,150,#
  496
                                                  SBC A' (IX+12)
                                   DD9E12
            221,158,#
                                                  AND (IX+12)
  497
                                   DDA612
            221,166,#
  498
                                                  XOR (IX+12)
                                   DDAE12
             221,174,#
  499
                                                  OR (IX+12)
CF (IX+12)
                                   DDB612
             221,182,#
            221,190,#
221,225
221,227
221,229
221,233
221,249
221,203,#, 6
221,203,#, 30
221,203,#, 38
221,203,#, 46
221,203,#, 62
221,203,#, 78
221,203,#, 78
221,203,#, 78
221,203,#, 78
221,203,#, 78
221,203,#, 78
221,203,#, 94
221,203,#, 102
221,203,#, 102
  500
                                   DDBE12
             221,190,#
  501
                                                   POP IX
                                   DDE1
  502
                                                  EX (SP)'IX
                                   DDE3
  503
                                                   PUSH IX
                                   DDE5
  504
                                                   JP (IX)
                                    DDE9
  505
                                                   LD SP'IX
                                    DDF9
                                                   RLC (IX+12)
RRC (IX+12)
  506
                                    DDCB1206
  507
                                    DDCB12ØE
  508
                                                   RL (IX+12)
                                   DDCB1216
DDCB121E
DDCB1226
DDCB122E
                                                   RR (IX+12)
  509
  510
                                                   SLA (IX+12)
SRA (IX+12)
  511
                                                   SRA
   512
                                    DDCB123E
DDCB1246
DDCB124E
                                                         (IX+12)
                                                   SRL
   513
                                                         Ø'(IX+12)
                                                   BIT
                                                         1, (1X+12)
2, (1X+12)
   514
                                                   BIT
   515
                                                   BIT
                                    DDCB1256
   516
                                    DDCB125E
DDCB1266
DDCB126E
                                                         3'(IX+12)
                                                   BIT
   517
                                                         4'(IX+12)
                                                    BIT
   518
                                                         5'(IX+12)
                                                   BIT
              221,203,#,110
221,203,#,118
   519
                                                         6' (IX+12)
                                                    BIT
                                    DDCB1276
                                                          7, (IX+12)
   520
                                    DDCB127E
DDCB1286
DDCB128E
                                                    BIT
              221,203,#,126
                                                         Ø'(IX+12)
   521
                                                    RES
              221,203,#,134
                                                          1'(IX+12)
   522
              221,203,#,142
221,203,#,150
221,203,#,158
221,203,#,166
                                                    RES
   523
                                                          2'(IX+12)
                                     DDCB1296
DDCB129E
DDCB12A6
                                                    RES
   524
                                                          3'(IX+12)
                                                    RES
   525
                                                          4' (IX+12)
                                                    RES
   526
                                                          5'(IX+12)
                                     DDCB12AE
                                                    RES
              221,203,#,174
221,203,#,182
                                                          6'(IX+12)
7'(IX+12)
   527
                                                    RES
                                     DDCB12B6
   528
529
                                     DDCB12BE
DDCB12C6
DDCB12CE
                                                    RES
              221,203,#,190
                                                          Ø'(IX+12)
1'(IX+12)
              221,203,#,198
221,203,#,206
221,203,#,214
                                                    SET
    530
                                                    SET
    531
                                                          2'(IX+12)
                                     DDCB12D6
DDCB12DE
                                                    SET
    532
                                                          3' (IX+12)
                                                    SET
               221,203,#,222
    533
                                                          4'(IX+12)
                                     DDCB12E6
                                                    SET
               221,203,#,230
    534
                                                          5'(IX+12)
               221,203,#,238
221,203,#,246
221,203,#,254
222,#
                                                     SET
                                     DDCB12EE
                                                          6'(IX+12)
    535
                                                     SET
                                     DDCB12F6
    536
                                                           71 (IX+12)
                                                     SET
                                     DDCB12FE
    537
                                                           A' 12
                                                     SEC
                                     DE12
    538
                                                           18H
                                                     RST
                                      DF
               223
```

1

246,#

617

618	247	F7 F8	RST 30H RET M
619 620	248 249	F9	LD SP'HL JP M'1234
621 622	250,#,# 251	FA3412 FB	EI
623	252,#,#	FC3412	CALL M'1234 ADD IY'BC
624 625	253, 9 253, 25	FD09 FD19	ADD IY'DE
626	253, 33, #, #	FD213412 FD223412	LD 1Y'1234 LD (1234)'1Y
627 628	253, 34,#,# 253, 35	FD23	INC IY
629	253, 41 253, 42,#,#	FD29 FD2A3412	ADD IY'HL LD IY'(1234)
630 631	253, 43	FD2B	DEC IY INC (IY+12)
632 633	253, 52,# 253, 53,#	FD3412 FD3512	DEC (1Y+12)
634	253, 54,#,# 253, 57	FD361212 FD39	LD (IY+12)'12 ADD IY'8P
635 636	253, 70,#	FD4612	LD B'(IY+12)
637 638	253, 78,# 253, 86,#	FD4E12 FD5612	LD D'(IY+12)
639	253, 94,#	FD5E12 FD6612	LD E'(IY+12) LD H'(IY+12)
640 641	253,102,# 253,110,#	FD6E12	LD L'(IY+12)
642 643	253,112,# 253,113,#	FD7012 FD7112	LD (IY+12)'B LD (IY+12)'C
644	253,114,#	FD7212 FD7312	LD (IY+12)'D LD (IY+12)'E
645 646	253,115,# 253,116,#	FD7412	LD (IY+12)'H
647	253,117,# 253,119,#	FD7512 FD7712	LD (IY+12)'L LD (IY+12)'A
648 649	253,126,#	FD7E12 FD8612	LD A'(IY+12) ADD A'(IY+12)
65Ø 651	253,134,# 253,142,#	FDBE12	ADC A' (IY+12)
652	253,150,# 253,158,#	FD9612 FD9E12	SUB (IY+12) SBC A' (IY+12)
653 654	253, 166, #	FDA612	AND (IY+12) XOR (IY+12)
655 656	253,174,# 253,182,#	FDAE12 FDB612	OR (IY+12)
657	253,190,# 253,203,#, 6	FDBE12 FDCB1206	CP (IY+12) RLC (IY+12)
658 659	253, 203, #, 14	FDCB12ØE	RRC (IY+12) RL (IY+12)
660 661	253,203,#, 22 253,203,#, 30	FDCB1216 FDCB121E	RR (IY+12)
662	253,203,#, 38 253,203,#, 46	FDCB1226 FDCB122E	SLA (IY+12) SRA (IY+12)
663 664	253,203,#, 62	FDCB123E	SRL (IY+12) BIT 0'(IY+12)
665 666	253,203,#, 70 253,203,#, 78	FDCB1246 FDCB124E	BIT 1'(IY+12)
667	253,203,#, 86	FDCB1256 FDCB125E	BIT 2'(IY+12) BIT 3'(IY+12)
668 669	253,203,#,102	FDCB1266	BIT 4'(IY+12)
670 671	253,203,#,110 253,203,#,118	FDCB126E FDCB1276	BIT 6'(IY+12)
672	253,203,#,126 253,203,#,134	FDCB127E FDCB1284	BIT 7'(IY+12) RES Ø'(IY+12)
673 674	253,203,#,142	FDCB128E	RES 1'(IY+12)
675 676	253,203,#,150 253,203,#,158	FDCB1296 FDCB129E	RES 3'(IY+12)
677	253,203,#,166 253,203,#,174	FDCB12A6 FDCB12AE	
678 679	253,203,#,182	FDCB12B6	RES 6'(IY+12)
68Ø 681	253,203,#,190 253,203,#,198	FDCB12C4	SET 0'(1Y+12)
682	253,203,#,206 253,203,#,214	FDCB12CE	SET 2'(IY+12)
683 684	253,203,#,222	FDCB12DE	SET 3'(1Y+12)
685 686	253,203,#,230 253,203,#,238	FDCB12EE	SET 5'(IY+12)
687 688	253,203,#,246 253,203,#,254	FDCB12F6	SET 7'(IY+12)
689	253,225	FDE1 FDE3	EX (SP), IA
690 691	253,227 253,229	FDE5	PUSH IY
692 693	253,233 253,249	FDE9 FDF9	TD SE, IA
694	254,#	FE12 FF	CP 12 RST 38H
695	295	1 1	the transfer